



# Newport News Composite Squadron

September 2012 Safety Briefing

11 Sep 12





# Overview

- Safety Education Reminders
- September Safety Beacon
  - Back-to-School Safety Checklist
  - Preventing Bullying
  - Heads Up: Concussion in Youth Sports
  - Medical Oxygen Safety
  - Keeping an UPRightT Attitude
  - Special Airworthiness Information Bulletin
  - FFAST Blast
  - FAA Safety Team
- Other Stuff



# Safety Education Reminders

- Active members are required to **complete safety education monthly and have it documented**. Documentation required for participation in activities. SAREX safety briefings **don't** count (ORM based).
- **Operational Risk Safety Briefings are mandatory**. Documentation not required (yet).
- **All current members** must complete, *Introduction to CAP Safety for New Members*, **ASAP (Prior to any other CAP activity)**.
- Online Safety Education
- Safety Alerts, Safety Suggestions – Online
- Improvement/Hazard Reports - CAP Form 26 has been phased out
- CAP Form 78 – Online Mishap Notification
- FAA Form 8740-5
- Pre-existing Conditions
- Cadet Medications
- **Individuals must be aware of their safety education currency.**



# CAP SMS Page

## CAP - Safety Management System(SMS)

eServices | Sign Out | Jeffrey A. Rowell

### About SMS

Overview

### Home

Home

### Education

Education Validation  
Log Safety Education  
Online Education

### Misc

Aircraft Ground Handling  
Check Safety Currency  
File Hazard Report  
Member Search  
Reports  
Safety Day/ORM Report

### Safety Mishap

File New Mishap(1)  
Manage Mishap Report  
Statement Entry  
Update New Mishap(2)

### Survey

Safety Survey

### References

Regulation(R62-1)  
Regulation(R62-2)  
Safety Alerts  
Safety Resources

### Documentation

Tutorials

## CAP - Safety Management System(SMS)



### SAFETY MANAGEMENT SYSTEM (SMS)



SAFETY  
RESOURCES



SAFETY  
REGULATION  
(R62-1)



SAFETY  
REGULATION  
(R62-2)



ONLINE SAFETY  
EDUCATION



EDUCATION  
VALIDATION



LOG SAFETY  
EDUCATION



FILE  
HAZARD REPORT



SAFETY SURVEY



STATEMENT  
ENTRY



FILE NEW  
MISHAP (1)



UPDATE NEW  
MISHAP (2)



MANAGE  
MISHAP REPORT



MAINTENANCE  
MANAGEMENT



REPORTS



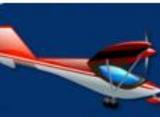
SAFETY ALERTS



CHECK SAFETY  
CURRENCY



MISHAP/FORM 5  
HISTORY



AIRCRAFT  
GROUND  
HANDLING

**CIVIL AIR PATROL**  
UNITED STATES AIR FORCE AUXILIARY

**CITIZENS SERVING  
COMMUNITIES**



# Safety Courses

<b>Elective Monthly Education Courses</b>	<b>Passing Score</b>	<b>Status</b>	
<a href="#">Downed Power Lines</a>	80	<b>PASSED</b>	<a href="#">Certificate</a>
<a href="#">Hurricane Preparedness and Awareness</a>	80	<b>PASSED</b>	<a href="#">Certificate</a>
<a href="#">Flooding</a>	80	<b>PASSED</b>	<a href="#">Certificate</a>
<a href="#">Winter Driving Safety</a>	80	<b>PASSED</b>	<a href="#">Certificate</a>
<a href="#">Wind Chill Index</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Spatial Disorientation</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Fundamental of Fire Extinguisher Training</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Geotagging</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">National Safety Officer Brief - Winter Board 2011</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Hydration</a>	80	<b>PASSED</b>	<a href="#">Certificate</a>
<a href="#">Lightning Safety</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Bird Strikes</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">Axes, Knives, and Saws</a>	80	<b>NOT TAKEN</b>	Certificate
<a href="#">FY11 Analysis and Recommendations</a>	80	<b>NOT TAKEN</b>	Certificate



# Safety Beacon

## Back-to-School Safety Checklist

- Review walking safety rules
  - Use sidewalk if available, walk facing traffic if not
  - Never dart out in front of a parked car
- Wear a helmet if riding a bike to school
- Ride on the right side of the road in a single file
- Stand 6 feet back from curb waiting for bus
- Cross 10 feet in front of bus, you should be able to see driver and driver should be able to see you
- Don't over stuff backpack – should weigh no more than 10-20% of your weight – use both straps
- Avoid playgrounds hard surfaces



# Safety Beacon

## Preventing Bullying

- Many forms – hitting/punching, teasing/name-calling, intimidation/social exclusion, insulting messages in email/social media sites
- Dislikes/loses interest in school, appears anxious/moody when talking about school, headaches/stomach aches, trouble sleeping/nightmares, unexplained cuts/bruises
- Causes lower self esteem, higher rates of depression, loneliness, anxiety.
- Higher absenteeism rates, poorer general health, suicidal thoughts
- Talk to your kids – talk to your parents



# Safety Beacon

## Heads Up: Concussion in Youth Sports

### Signs observed by coaching staff

- Appears dazed or stunned, forgets sports plays, moves clumsily, loses consciousness (even briefly)

### Symptoms reported by athlete

- Headache/"pressure" in head, nausea/vomiting, balance problems, dizziness, sensitivity to light/noise

### Action Plan if you suspect a concussion

- Remove athlete from play
- Evaluated by appropriate health care professional
- Inform parents
- Only return to play with health care professional permission

**It's better to miss one game than the whole season**



# Safety Beacon

## Medical Oxygen Safety

- Portable medical oxygen in the home has grown
- No safe way to smoke in the home when oxygen is in use
- Candles, matches, wood stoves and even sparking toys can be ignition sources and should not be used in the home
- Keep oxygen cylinders at least 5 feet from heat sources
- Body oil, hand lotion and items with oil & grease ignite easily – Keep oil & grease away when oxygen is in use
- Never use aerosol sprays containing combustible materials near oxygen
- Oxygen saturates fabric covered furniture, clothing, hair and bedding making it easier for fire to start and spread



# Safety Beacon

## Keeping an UPRight Attitude

- Loss of control – in-flight (LOC-I) accidents increasing
- LOC-I focus of FAA 2012 Safety Standdown
- Upset Prevention and Recovery Training (UPRT)
- Physical skills – but also knowledge and attitude

### DECIDE

- Detect change occurred
- Estimate need to react
- Choose outcome
- Identify actions
- Do necessary actions
- Evaluate effect of action

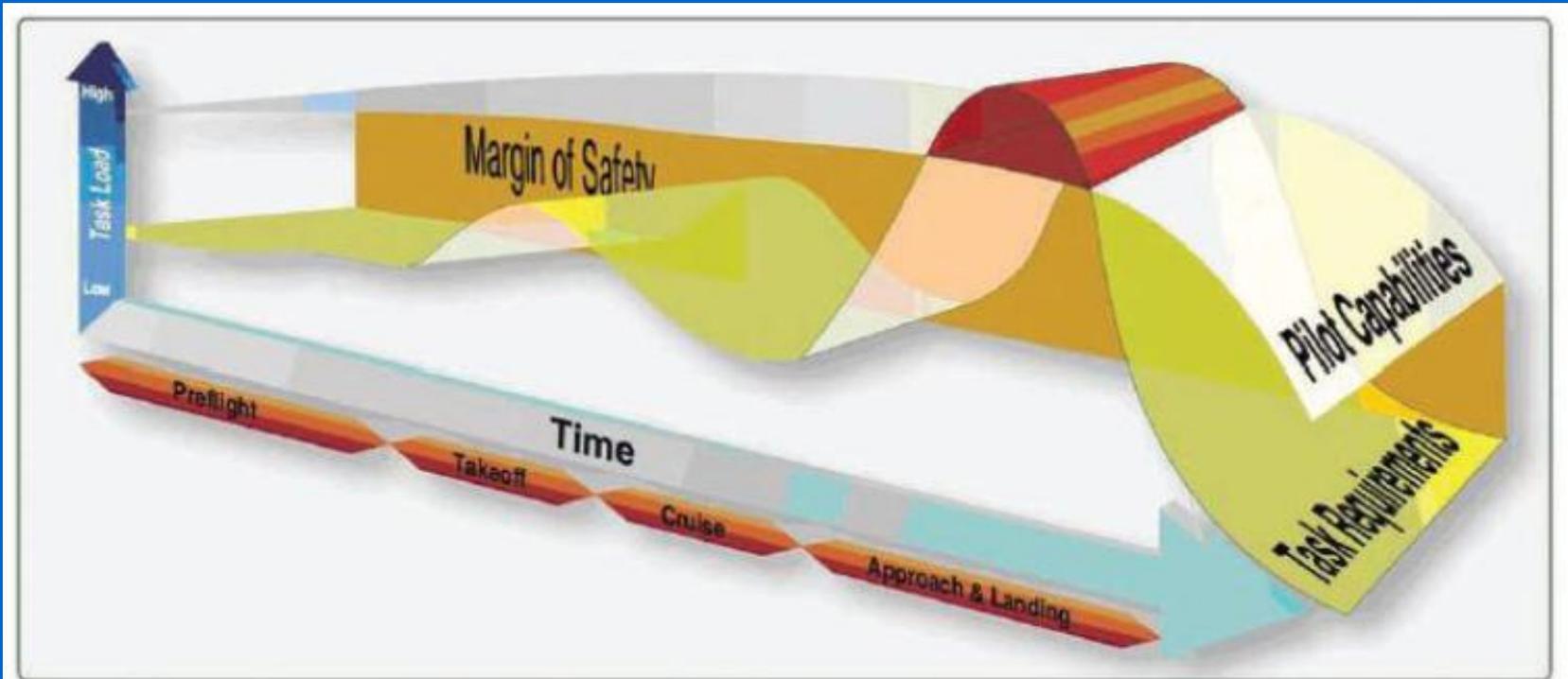
### FAA 3P Model

- Perceive
- Process
- Perform



# Safety Beacon

## Keeping an UPRightT Attitude



*The area in red shows how a pilot's capabilities may be overwhelmed by task demand and reduce his/her margin of safety.*



# Safety Beacon

## SAIB: Resetting Circuit Breakers

### Scenario

- Prior flight had weather radar failure and burning smell
- Turned off radar and manually pulled circuit breaker
- Burning smell went away continued flight for 1 hour
- Next day likely pilot reset breaker as part of checklist
- 10 minutes after takeoff, pilot announced problem – plane crashed 2 minutes later

### Recommendations

- Label breakers “essential” for safety of flight
- Reset “essential” breakers only once during flight
- Do not reset non-essential breakers in flight



# Safety Beacon

## FAAST Blast

- “Climb Via” Phraseology Change
- FAA delayed implementing this change
- SAIB issued for Loose Glide Screw on Cessnas
- C-182P included
- <http://go.usa.gov/7qQ>
- Reminder to read article in July/August FAA Safety Briefing concerning finding information about backcountry airstrips
- [www.faa.gov/news/safety\\_briefing/2012/media/julAug2012.pdf](http://www.faa.gov/news/safety_briefing/2012/media/julAug2012.pdf)



# Safety Beacon

## FAA Safety Team

### Scenario

- C-210 landed on active runway after being told to go around twice due to insufficient separation from preceding C-172 cleared for stop & go
- C-210 landed after announcing "BINGO FUEL"
- C-172 told to start immediate takeoff
- C-210 blew tire braking & making 180 on runway

### Lessons

- "Bingo FUEL" is not standard phraseology
- Avoid slang while communicating
- Don't be afraid to declare an emergency



# Extra Stuff

## Driving through moving water

- Ford Escape loss control and was washed into drainage ditch by water rushing across the road in Newport News during flash flooding 28 Aug
- Six inches of water will reach the bottom of passenger cars causing loss of control
- A foot of water will float many vehicles
- Two feet of water will carry away most vehicles
- Do not attempt to drive through flooded road – the depth of the water is not always obvious
- Do not drive around barricades



# Until Next Month

- Discover, report, stop, share, listen, and learn. The things we have read about in this issue already have happened, so you are not allowed to experience these for yourself. **Remember to "Knock It Off" and slow down.** For streaming dialogues on some subjects, remember CAP Safety is on Facebook and Twitter. Have a good month.





# Safety Beacon



Official Safety Newsletter Of The Civil Air Patrol

## BEACON NEWSLETTER TEAM

LT COL SHARON WILLIAMS  
LT COL VAN DON WILLIAMS  
MAJOR JAMES RIDLEY, SR.

Inside this Issue

Page

### Republished Articles

Back to School Safety Checklist	1
Preventing Bullying	2-3
Heads Up Concussion in Youth Sports	4
Medical Oxygen Safety	5
Keeping an Upright Attitude	6-8
Special Airworthiness Information Bulletin	9-11
Safer Skies Through Education	12-13
Region Safety Officers	14

Col Robert Diduch CAP/SE  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

Col Robert Alex  
Asst Cap/SE Ground Operations  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

Lt Col Bruce Brown  
Asst CAP/SE Education/Cadet Programs  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

Lt Col Dennis R. Bannon  
Asst CAP/SE Mishap Reviews  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

Lt Col Eric Sharppee  
Asst CAP/SE Aircraft Operations  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

Mr. Frank Jirik  
Safety, NHQ/SE  
[safety@capnhq.gov](mailto:safety@capnhq.gov)

September 2012



## Back-to-School Safety Checklist

### Transportation Safety

Whether children walk, ride their bicycle or take the bus to school, it is extremely important that they take proper safety precautions. Here are some tips to make sure your child safely travels to school.

#### Walking to school

- Review your family's walking safety rules.
  - Walk on the sidewalk, if one is available. When on a street with no sidewalk, walk facing the traffic.
  - Before you cross the street, stop and look all ways to see if cars are coming.
  - Never dart out in front of a parked car.
- Practice walking to school with your child.

#### Riding a bicycle to school

- Make sure your child always wears his helmet when leaving the house.
- Teach your children the rules of the road they need to know to ride their bicycles.
  - Ride on the right side of the road and in a single file.
  - Come to a complete stop before crossing the street.

#### Riding the bus to school

- Go to the bus stop with your child to teach them the proper way to get on and off the bus.
- Make sure your children stand six feet away from the curb.
- If your child and you need to cross the street in front of the bus, walk on the side of the road until you are 10 feet ahead of the bus. You always should be able to see the bus driver, and the bus driver always should be able to see you.



### School Safety

Many school-related injuries are completely preventable. Follow these steps to ensure your child's safety at school.

#### Preventing backpack-related injuries

- Chose a backpack for your child carefully. It should have ergonomically designed features to enhance safety and comfort.
- Don't overstuff a backpack; it should weigh no more than 10 to 20 percent of your child's body weight.
  - For example, a child that weighs 60 pounds should carry a backpack no heavier than 12 pounds.
- Ask your children to use both straps when wearing their backpack to evenly distribute the weight.

#### Preventing playground-related injuries

- Encourage your child only to use playgrounds with a soft surface. Avoid playgrounds with concrete, grass and dirt surfaces, as they are too hard.
- Children under the age of four should not use climbing equipment and watch older children when they're climbing.
- Do not let your children use monkey bars. They are unsafe and should not be used by children of any age.

## Safety at HOME

### National Safety Council

saves lives by preventing injuries and deaths at work, in homes and communities, and on the roads, through leadership, research, education and advocacy.

1121 SPRING LAKE DRIVE  
ITASCA, IL 60143  
(800) 621-7619 • [nsc.org](http://nsc.org)  
[customerservice@nsc.org](mailto:customerservice@nsc.org)



# Preventing Bullying

## What is bullying?

Every adult plays an important role in addressing bullying and making schools a safe, caring, respectful place for children.

***The U.S. Department of Health and Human Services defines bullying as an aggressive behavior that is intended to cause harm or distress, occurs repeatedly over time and involves an imbalance of power or strength.***

Bullying can take many forms, such as hitting or punching (physical bullying); teasing or name-calling (verbal bullying); intimidation using gestures or social exclusion (nonverbal bullying or emotional bullying); unwanted sexual contact (sexual bullying); and sending insulting messages by e-mail or social media sites (cyberbullying).



## Warning signs of bullying

- Dislikes or has lost interest in school work
- Has few, if any, friends
- Appears sad, anxious or moody when talking about school
- Complains of headaches, stomach aches
- Has unexplained cuts, bruises and/or scratches
- Appears afraid of going back to school
- Returns from school with torn, damaged or missing articles of clothing, books or belongings
- Has trouble sleeping and/or has frequent nightmares

## The dangers of bullying

Bullying among children has been happening for hundreds of years, but only recently has it been brought to the forefront of our society's consciousness. Tragedies in schools across the country have led to increased public awareness and scientific research into the psychological damage caused by bullying.

Bully victimization has been found to be related to lower self-esteem, higher rates of depression, loneliness and anxiety. Victims have higher school absenteeism rates, report experiencing poorer general health and are more likely to have suicidal thoughts than their non-bullied peers.

***Specifically, those who reported being bullied at least once a week were twice as likely as their peers to "wish they were dead" or admit to having a recurring idea of taking their own life.***

Bullying also can have long-term psychological effects, as a study of males in their 20s found that those who had been bullied in school were more depressed and had lower self-esteem than their non-bullied peers.

**Safety**  
at HOME

### National Safety Council

saves lives by preventing injuries and deaths at work, in homes and communities, and on the roads, through leadership, research, education and advocacy.



### Responding to bullying

Never think of bullying as just a matter of "kids being kids." It is a serious problem and should be treated as such. Your child deserves to grow up and attend schools in a safe, comfortable environment. Take the following steps if you feel that your child might be a victim of bullying.

**Empower your child.** Children are often reluctant to tell adults about bullying because they are ashamed, embarrassed or fearful of retaliation, so it is important to praise them for being brave enough to speak up. Practice with your child what he or she can say if being bullied or how to report a situation to a bus driver or teacher.

**Ask questions.** By asking questions, you can find out who was involved, what occurred and where and when it happened. Comforting the child and offering support by nodding and verbally encouraging him or her to go on will help to fully understand the situation.

**Assess the situation.** Is the bullying still happening? Has the bullying extended into the classroom, bus, lunchroom, etc.? Do they fear what will happen if they report the bullying? Talk with the child about what he or she needs to feel and be safe. Explore possible actions your child may take to be safer such as eating lunch with another child.

**Inform your child's school.** Your child should never be fearful of another child or going to school, so you need to take the proper actions to prevent any further harm. Work with the school authorities or your child's teacher to address the bullying. School authorities need to know about the problem to properly address it and create a solution. You also may want to consult with a counselor on how to move forward with your child.

Find out *who* was involved, *what* occurred and *where* and *when* these acts happened.



1121 SPRING LAKE DRIVE  
ITASCA, IL 60143  
(800) 621-7619 • [nsc.org](http://nsc.org)  
[customerservice@nsc.org](mailto:customerservice@nsc.org)

making our world safer®



### SIGNS AND SYMPTOMS

These signs and symptoms may indicate that a concussion has occurred.

#### SIGNS OBSERVED BY COACHING STAFF

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets sports plays
- Is unsure of game, score, or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows behavior or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

#### SYMPTOMS REPORTED BY ATHLETE

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Sensitivity to light
- Sensitivity to noise
- Feeling sluggish, hazy, foggy, or groggy
- Concentration or memory problems
- Confusion
- Does not "feel right"

### ACTION PLAN

If you suspect that a player has a concussion, you should take the following steps:

1. Remove athlete from play.
2. Ensure athlete is evaluated by an appropriate health care professional. Do not try to judge the seriousness of the injury yourself.
3. Inform athlete's parents or guardians about the known or possible concussion and give them the fact sheet on concussion.
4. Allow athlete to return to play **only** with permission from an appropriate health care professional.

***It's better to miss one game than the whole season.***

For more information and to order additional materials **free-of-charge**, visit:  
[www.cdc.gov/ConcussionInYouthSports](http://www.cdc.gov/ConcussionInYouthSports)

# Medical Oxygen Safety

Portable medical oxygen in the home has grown over the past decade. Medical oxygen adds a higher percentage of oxygen to the air a patient uses to breath. Fire needs oxygen to burn. If a fire should start in an oxygen-enriched area, the material burning will burn more quickly.

Homes where medical oxygen is used need specific fire safety rules to keep people safe from fire and burns.

## SAFETY TIPS

- »» There is no safe way to smoke in the home when oxygen is in use. If a patient is on oxygen, they should not smoke.
- »» Candles, matches, wood stoves and even sparking toys, can be ignition sources and should not be used in the home.
- »» Keep oxygen cylinders at least five feet from a heat source, open flames or electrical devices.
- »» Body oil, hand lotion and items containing oil and grease can easily ignite. Keep oil and grease away where oxygen is in use.
- »» Never use aerosol sprays containing combustible materials near the oxygen.

## FACTS

- ⚠ Oxygen saturates fabric covered furniture, clothing, hair and bedding, making it easier for a fire to start and spread.
- ⚠ Smoking materials is the leading heat source resulting in medical oxygen related fires, injuries and deaths.



Post "**No Smoking**" and "**No Open Flames**" signs in and outside the home to remind people not to smoke.



Your Source for  
SAFETY Information

JANEEN ADRION KOCHAN, PH.D.

# Keeping an UPRIGHT Attitude

*Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect.*

— Captain A. G. Lamplugh, *British Aviation Insurance Group*

We all love and enjoy aviation, right? So you might be surprised, or even ready to argue, when I say that it pays to be a pessimist in this particular activity. Now that doesn't mean that you have to adopt a grim-faced gloom-and-doom outlook. But, as I hope you learned the very first time you preflighted an aircraft, a healthy sense of "it-could-happen-to-me" skepticism goes a long way toward keeping you, your passengers, and your aircraft healthy and whole.

As Rich Stowell suggests in his *Pilot-in-Control* article on page 10, nowhere is that "it-could-happen-to-me" outlook more important than in our fight against the leading aviation accident hazard: loss of control—in-flight (LOC-I). Loss of control accidents have been on the constant increase for all categories of flight for the past 25 years. And, if the accidents are on the rise, the number of LOC incidents and unreported events are, no doubt, exponentially higher. That's why countering LOC-I is a focus area for the FAA's 2012 Safety Standdown. No matter how LOC is technically defined or accounted for in accident statistics, the fact remains that pilots—and that means *all* pilots—need to focus harder on staying in control.

## UPRT Keeps You Upright

So, how do you pursue staying in control and improve your margin of safety in flying? One answer lies in Upset Prevention and Recovery Training (UPRT)—and if the abbreviation seems like too much of a mouthful, try thinking of it as "UPRight" training.

As with many kinds of aviation training, UPRT requires a variety of skills. The obvious one is physical

skill, also known as stick-and-rudder skill. There is no substitute for hands-on practice for knowing how to recover and regain control of your aircraft.

But knowledge and attitudes are important as well. As another aviation cliché so deftly explains, a superior pilot uses superior knowledge to avoid situations that require the use of superior skill. Accordingly, another goal of UPRT is to teach you to maintain awareness of situations that could contribute to LOC and avoid putting yourself in LOC-inducing situations.

When it comes to awareness, one very important data point is the fact that the margin of safety changes many times throughout a flight. During approach and landing, for example, your task requirements (locating the airport, preparing for an approach to the runway, completing checklists, securing the cabin, etc.) can be significantly greater than the capabilities available to you at the time. Now add the fatigue factor common to the conclusion of any flight, and especially one that was long or replete with weather challenges. This combination of events is precisely how too much workload combined with distractions or other unexpected events (last minute runway change, a go-around, gusty winds, etc.) can lead to LOC.

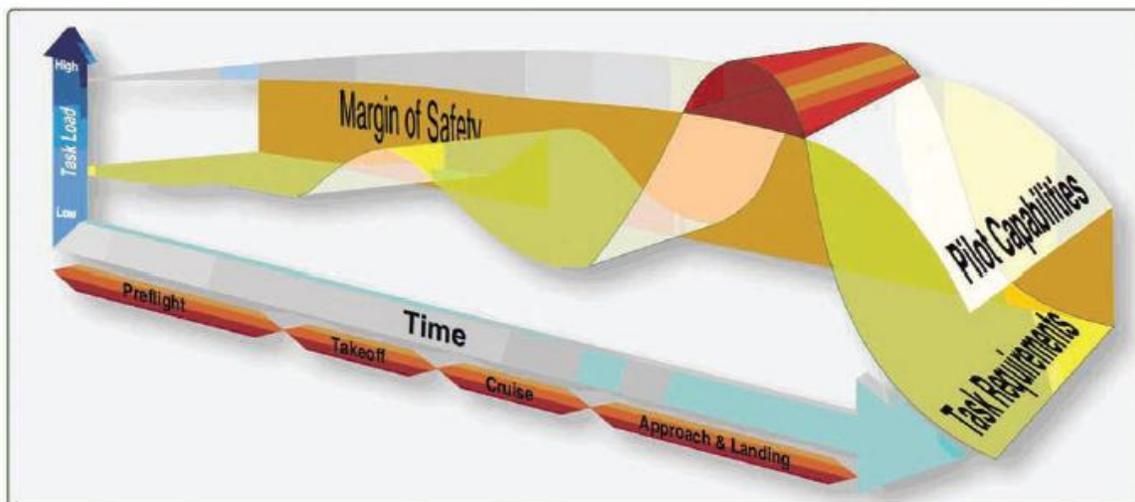
So, with the goal of increasing your margin of safety in mind, let's see how you can develop some of the UP—upset prevention—knowledge, attitudes, and mental habits that will help you avoid LOC.

## Clues and Cues

In most accidents or unwanted outcomes, hindsight often reveals a multitude of factors leading up to a potential upset situation. Research shows that pilots often missed, or even ignored, readily available clues and cues that could have prevented

---

**Research shows that LOC accident pilots often missed, or even ignored, readily available clues and cues that could have prevented the upset or LOC event.**



The area in red shows how a pilot's capabilities may be overwhelmed by task demand and reduce his/her margin of safety.

an upset or LOC event. These include such items as icing conditions, flight control malfunctions and wake turbulence. Ultimately, inattention to such clues and cues can lead to inadvertent or deliberate pilot-induced upsets.

The good news is that there are some very practical and straightforward cognitive (thinking) techniques that, if developed into solid mental habits, can help you pay closer attention and more accurately perceive information that could be a precursor to an in-flight upset. Human factors scientists who study pilot decision-making have developed a number of models over the years. You may already be familiar with the DECIDE model, an acronym designed to guide the pilot through a series of structured steps you can use to avoid LOC-I. For example:

Detect that a change has occurred (e.g., aircraft has departed straight-and-level flight).

Estimate the need to counter or react (e.g., need to lower pitch and increase airspeed).

Choose a desirable outcome (e.g., return to straight-and-level flight).

Identify actions to control change (e.g., pitch down, increase power).

Do the necessary action (e.g., execute the actions identified in previous step).

Evaluate the effect of the action (e.g., confirm resumption of straight-and-level flight).

For those who find the DECIDE model too lengthy or complex, the FAASTeam has developed a simplified tool: the Perceive, Process, Perform (3P) model. Here's how it works.

**Perceive:** In order to avoid or mitigate risk factors, you must consciously seek out the clues and cues providing information about yourself and your surroundings. A structured way to perceive is to use the PAVE model to identify hazards associated with the pilot, aircraft, environment, and external pressures. You may have encountered PAVE as a preflight tool, but perceiving clues, cues, and hazards is an ongoing process. Ask yourself: "What am I paying attention to? What am I thinking about? Is my focus where it should be at this point?" Consciously monitor the engine parameters to seek information on the status of your aircraft systems. Look outside for weather, traffic, and UFOs (just seeing if you are paying attention). Though it sounds simple enough, pilots sometimes fail to perceive clues and cues effectively because paying attention takes mental effort and energy. Did you know that actively thinking burns more calories than just watching a video?

**Process—**Now that you have gathered information about the pilot, the aircraft, the environment, and external pressures, you need to process it. Ask yourself: "How am I doing? How is the aircraft performing? Is the weather as expected? Is there anything that needs to be acted upon? How will the situation be in the future?" And yes, the act of thinking to evaluate and process information also takes mental effort and energy.

**Perform—**Depending on the outcome of your processing, you may or may not need to act. If all is well, go back to step one and perceive.

### Mental Muscle Matters

Now, let's look at an example of how the mental muscle you develop through habitual use of the 3P

model can help you avoid LOC-I. Imagine that you are flying a typical four-place GA airplane. You are approaching your destination airport and preparing for the landing. The controller tells you that you will be following a Boeing 737.

You continue to perceive, looking for the B-737 traffic while you complete your approach and landing checklists. You know from training and experience about wake turbulence, and you consciously bring that knowledge into processing the information ATC has provided about the B-737 traffic. Knowing how quickly a wake turbulence encounter can induce LOC, and how dangerous LOC would be this close to the ground, you determinedly scan until you spot the traffic at your 11 o'clock position. You tell the controller you have both the B-737 and the airport in sight, and acknowledge being cleared to land, number two behind the Boeing. You make a special mental note of the controller's standard "caution wake turbulence" admonition. You further process by reviewing wake turbulence avoidance procedures when winds are calm, as they are on final today.

Now it's time to perform. The B-737 is ahead, just below your altitude and descending. Although your normal procedure is to begin your own descent, you know you need to stay above the B-737 to avoid encountering its wake. With the long runway ahead of you, though, you recognize that you will have plenty of room to remain above the B-737, land "long" (i.e., beyond the larger aircraft's touchdown point), and decelerate with room to spare. You carefully maneuver your aircraft in accordance with what you have perceived and processed, and you land without incident.

Imagine, though, what might have happened had you not used your mental muscle. Let's say that you fail to spot the traffic right away, but you acknowledge landing clearance and continue inbound. You finally spot the B-737—wow, it's closer than you realized. You tell the controller you have traffic in sight and set about with your normal approach and landing configuration and routine. You turn final at 1,000 feet AGL. Your aircraft suddenly rolls a full 90 degrees to the left. Startled, you use your physical muscle—all of it—to wrestle the aircraft back toward level flight... descending all the while. You land (probably not one to brag about) and, still shaking from the near-disastrous LOC, taxi to parking.

Whether you performed correctly or (as teachers like to say) with "areas for improvement," there is a final and important step:

Evaluate—What were you thinking? Where did your decision-making process work, and where did it break down? What will you do differently next time? Using the B-737 example, perhaps you could request a turn for more spacing behind a large airplane. Or you could decide to go around and completely avoid the turbulence threat.

The most important thing is to think it through, either way: a good outcome might be the result of good thinking, but it could also be just lucky—and luck has a way of running out at very inconvenient times. We can have knowledge and perceptions, but fail to process information. We can process information (correctly or incorrectly) and fail to perform, or perform incorrectly. We can evaluate our performance incorrectly and never decrease the probability of having a bad outcome and fail to increase our margin of safety. It is this breakdown in our decision-making that contributes to LOC events, incidents and, unfortunately for some, fatal accidents.

Stay UPRighT, stay safe, and stay alive! 

---

**Upset Prevention and Recovery Training (UPRT) can teach awareness and avoidance of situations that contribute to loss of control-inflight.**

---

*Janeen Adrion Kochan holds a Ph.D. in Applied Experimental and Human Factors Psychology and an M.S. in Industrial and Systems Engineering. She has been involved in human factors research in medicine and aviation since 1980. A former Boeing 767 captain and CRM instructor for a major U.S. air carrier, Dr. Kochan now flies as a corporate pilot. She also holds A&P/IA, CFI, and DPE privileges.*

## Learn More

### Special Airworthiness Information Bulletin CE-11-17 on Design Maneuvering Speed

[http://rql.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rqSAILB.nsf/dc7bd4f27e5f107486257221005f069d/3c00e5aa64a2827e8625781c00744393/\\$FILE/CE-11-17.pdf](http://rql.faa.gov/Regulatory_and_Guidance_Library/rqSAILB.nsf/dc7bd4f27e5f107486257221005f069d/3c00e5aa64a2827e8625781c00744393/$FILE/CE-11-17.pdf)

### Advisory Circular 61-67C Stall and Spin Awareness Training

[http://rql.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rqAdvisoryCircular.nsf/list/AC%2061-67C/\\$FILE/AC61-67C.pdf](http://rql.faa.gov/Regulatory_and_Guidance_Library/rqAdvisoryCircular.nsf/list/AC%2061-67C/$FILE/AC61-67C.pdf)

### International Committee for Aviation Training in Extended Envelopes

<http://icatee.org/>

### Upset Prevention & Recovery Training Association

<http://uprta.org/>



**FAA**  
Aviation Safety

## **SPECIAL AIRWORTHINESS INFORMATION BULLETIN**

**SUBJ:** Electrical: Fire Hazard in Resetting Circuit Breakers (C/Bs)

**SAIB:** CE-10-11

**Date:** December 23, 2009

*This is information only. Recommendations aren't mandatory.*

### **Introduction**

This Special Airworthiness Information Bulletin (SAIB) advises pilots, owners, maintenance personnel, and operators of an airworthiness concern on all 14 CFR, part 23/Civil Air Regulations (CAR 3) airplanes. It gives best practices regarding tripped circuit breakers (C/B), inspection and maintenance of systems, and aging wires. There is a potential hazard when resetting an opened circuit breaker.

At this time, this airworthiness concern is not considered an unsafe condition that would warrant an airworthiness directive action under Title 14 of the Code of Federal Regulations (14 CFR), part 39.

### **Background**

On a flight in the accident airplane, the day before an accident, a pilot had a weather radar failure and a burning smell in the airplane. In response, the pilot turned off the weather radar and manually pulled the related circuit breaker. The burning smell went away according to the pilot's entry in the airplane's maintenance discrepancy binder. The pilot continued the flight with the circuit breaker pulled for another hour.

The next day it is likely the pilots reset the weather radar C/B, restoring power to the weather radar system wiring. This is consistent with routine or the "Before Starting Engines" checklist. Then 10 minutes after takeoff, they announced a problem and crashed about two minutes later. The National Transportation Safety Board (NTSB) determined that the most likely failure was from the weather radar and its associated wiring, which would be possible only if that crew reset the weather radar circuit breaker.

Current guidance for part 25, Transport Airplanes in AC 25-16, *Electrical Fault and Fire Prevention and Protection* that has been accepted for small airplanes, is to recommend that no pilot should reset any circuit breaker more than once. In the accident airplane, we do not know if the circuit breaker tripped again but, if it did, it was after an uncontrollable fire was started.

### **Recommendations**

We recommend that all airplane owners and operators do the following:

The rules, either CAR 3, § 3.691 or 14 CFR part 23, § 23.1357, require the C/Bs that are essential for safety in flight be located and marked so they can be reset in flight. The rules do not require segregation of non-essential C/Bs. This SAIB references the most current "best practices" for circuit breakers, the electrical system and aging wiring. It is important to note that many older aircraft may have little or no guidance on resetting policy in their airplane flight manuals.

1. Mark those essential for safety in flight.
2. "Essential" C/Bs should be reset in flight only once:

- a. after at least one minute;
  - b. if there is no remaining smoke or “burning smell”; and
  - c. the affected system and equipment is needed for the operational environment.
3. Do not reset any non-essential C/Bs in flight.
  4. Revise the preflight checklist to delete “Circuit breakers-In” if applicable and insert: “Check circuit breakers and if a circuit breaker is not set, do not reset the circuit breaker if there is a related maintenance malfunction.”

#### Essential for Safety In Flight C/Bs

For a Day VFR-Only approved airplane, there may be no essential functions that require electrical power. However, it may be necessary to supply power for certain communication capacities.

For other types of operating approvals, consider the following for providing power. Assuming operations under IFR conditions for 14 CFR part 91 or part 135 operations, consider the following systems as essential for safety:

1. Any electrical loads unique for the airplane characteristics and needed for continued safe flight and landing for the intended operations.
2. If needed to comply with 14 CFR §§ 23.1323 and 23.1325, one airspeed indicator with a heated pitot tube and an altimeter with either a heated static pressure source or an alternate static pressure source.
3. The magnetic compass and any display necessary for continued safe flight and landing that is sufficiently illuminated for night operation.
4. One navigation system installation appropriate to the ground facilities.
5. One communication installation system.
6. One gyroscopic pitch and bank indicator.
7. One clock.
8. Any display for the powerplant parameter necessary for continued safe flight and landing.

The following items should be reviewed by pilots during initial and recurrent training and flight reviews:

1. Review the circuit breaker reset policy in Advisory Circular (AC) 120-80, *In-Flight Fires*.
2. A tripped circuit breaker should not be reset in flight unless doing so is consistent with explicit procedures specified in an approved operating manual or airplane flight manual, or unless, in the judgment of the pilot in command, resetting the breaker is necessary for safe completion of the flight.
3. While on the ground, avoid resetting circuit breakers without first exploring reasons for them “tripping” in the first place, unless instructed by the maintenance manual.

4. Review the indications of hidden fires and the importance of not arbitrarily resetting circuit breakers.
5. Review the actions required by 14 CFR Section 91.213 dealing with inoperative instruments and equipment.
6. Include this SAIB in initial and recurrent training and flight reviews.

The following items should be reviewed by maintenance personnel:

1. Conduct an electrical load analysis, or make electrical measurements that account for all electrical loads in probable combinations when installing additional electrical devices.
2. Review standard wiring practices including, but not limited to, wire size, splicing, routing/clamping issues, loop bend radius, and terminal condition.
3. Replace wires that show evidence of damage due to chafing, fraying, contamination, moisture, dirt, cracks, overheating, or are crushed or kinked.

#### **For Further Information Contact**

Leslie B. Taylor, Aerospace Engineer, Federal Aviation Administration, Small Airplane Directorate, 901 Locust Street, Room 301, Kansas City, MO 64106; phone: (816) 329-4134; fax: (816) 329-4090; e-mail: [leslie.b.taylor@faa.gov](mailto:leslie.b.taylor@faa.gov).

# FAA Safety Team | Safer Skies Through Education

## FAAST Blast

Notice Number: NOTC4034

**FAAST Blast — Week of Aug 06 – Aug 12, 2012**  
**Biweekly FAA Safety Briefing News Update**

### **“Climb Via” Phraseology Change**

The FAA has modified phraseology used to issue clearances to pilots for route transitions, standard instrument departures (SIDs), and area navigation (RNAV) SIDs containing speed and altitude restrictions. Effective Aug. 15, controllers will begin using the term “climb via” which is consistent with the existing “descend via” phraseology and procedures. The change adds the phrase to the Pilot/Controller Glossary and defines responsibility for adherence to published altitude and speed restrictions when issued a “climb via” or “descend via” clearance. Current phraseology has proved inadequate and cumbersome for ATC to clear aircraft onto a procedure, to resume a procedure, or to simultaneously instruct pilots that compliance with speed and altitude restrictions is required.

A FAA-produced video on this change is available at: [www.faa.gov/tv/?mediaId=507](http://www.faa.gov/tv/?mediaId=507)

### **SAIB Issued for Loose Glide Screw on Cessnas**

FAA has issued a Special Airworthiness Information Bulletin (SAIB) to inform owners and operators of an airworthiness concern, specifically the possibility of a loose glide screw in the control column on select 100-, 200-, and 300-series Cessna model airplanes. The FAA received a report through the Safety Difficulty Reporting (SDR) system of a jammed elevator control system on a Cessna Model 182S airplane. The jam occurred in flight in the neutral elevator position, and the pilot was able to land the airplane safely using elevator pitch trim control.

A mechanic removed the control wheel assembly and discovered the screw, which secures the plug and glide, had completely backed out and jammed the elevator control.

The FAA recommends complying with Cessna service bulletins SEB-27-01 (original, R1, or R2) or MEB-27-01 (original or R1). To view the SAIB online, visit: <http://go.usa.gov/7qQ>.

### **Coming Out of the Woods**

In the world of backcountry flying, there’s a lot to consider when it comes to aviating safely. However, one basic, yet vital safety task that can stymie even the most resourceful pilot is how and where to dig up airstrip information. As Mark Spencer writes in his *FAA Safety Briefing* article, “Coming Out of the Woods,” the information gauge often reads “slim to none” when it comes to tracking down important attributes for backcountry airstrips. Spencer offers several helpful tips on how to unearth these elusive nuggets to help make your next backcountry venture a safe one.

Be sure to check out the article on page 12 of the July/August 2012 issue of *FAA Safety Briefing* at [www.faa.gov/news/safety\\_briefing/2012/media/JulAug2012.pdf](http://www.faa.gov/news/safety_briefing/2012/media/JulAug2012.pdf).

Produced by the *FAA Safety Briefing* editors, [http://www.faa.gov/news/safety\\_briefing/](http://www.faa.gov/news/safety_briefing/)

Address questions or comments to: [SafetyBriefing@faa.gov](mailto:SafetyBriefing@faa.gov).

Follow us on Twitter @FAASafetyBrief or <http://www.twitter.com/FAASafetyBrief>

*This notice is being sent to you because you selected “General Information” in your preferences on FAASafety.gov. If you wish to adjust your selections, log into*

<https://www.faasafety.gov/Users/pub/preferences.aspx> where you can update your preferences.

Over 10,150 AMTs earned an AMT Award last year. Will you, this year?

[FAASafety.gov](http://FAASafety.gov) | [Email Preferences](#) | [Opt Out](#)

Do not reply to this email as it is an unmonitored mailbox. [Contact us](#) for comments or questions.

# FAA Safety Team | Safer Skies Through Education

## Pilot Plays Game of Chance

Notice Number: NOTC3964

Proper terminology is our topic for today. In this case, we discuss use of the term BINGO FUEL by a pilot. As you know, BINGO is a game of chance, and pilots in flight should not be taking chances! As you might expect, the word BINGO is not found in the Pilot/Controller Glossary.

It is also military slang for the minimum fuel required for a comfortable and safe return to base. To clarify, even if the controller had understood the pilot's use of "BINGO FUEL" in the following example, the phrase does not indicate an emergency fuel condition, and the controller would not have changed his instructions. The expectation would be a normal landing that does not require emergency handling.

Recently a pilot used that term while approaching to land at an airport. One can only imagine that the pilot had watched too many old flying movies. In this instance, there was a Runway Incursion and a Pilot Deviation, which will most likely result in an enforcement action (or Remedial Training) by the FAA. *The C-210 landed on the active runway after being told to go around (twice) by the Tower due to insufficient separation from the preceding aircraft, a C-172 executing a previously approved stop and go maneuver. The Tower issued both go around instructions prior to the C-210 crossing the Runway threshold.*

*The C-210 landed on the runway after announcing "BINGO FUEL." Noting that the C-210 was not going around, the Tower told the C-172 to start an immediate take-off roll prior to the C-210 landing. Aggressive braking by the C-210 pilot led to the aircraft making a 180-degree turn on the runway resulting in a blown right main gear tire. Closest proximity to the preceding aircraft reported by the Tower was 300 feet.* To repeat, BINGO FUEL is not standard phraseology and pilots should not use the term. In addition, in this case, the pilot did not declare an emergency (which would have helped the controller to understand the circumstances) and after landing locked both wheels while braking to avoid the preceding aircraft. Furthermore, the pilot landed after the Tower instructed him to go around.

Please remember to avoid slang while communicating; it only leads to confusion and in the case above, could have resulted in a collision on the runway with potentially dire results.

Furthermore, don't be afraid of the "E" word – Emergency. Even if paperwork is required after landing (and it typically is not), that's less expensive than the blown tire, as in this case, or the potential damage caused by a collision.

We could go on about the situation created by what appears to have been a low fuel condition, and what caused that, but today's topic is proper terminology.

Have fun and Fly Safe!

*This notice is being sent to you because you selected "**General Information**" in your preferences on FAASafety.gov. If you wish to adjust your selections, log into*

*<https://www.faasafety.gov/Users/pub/preferences.aspx> where you can update your preferences.*

Over 10,150 AMTs earned an AMT Award last year. Will you, this year?

[FAASafety.gov](https://www.faasafety.gov) | [Email Preferences](#) | [Opt Out](#)

Do not reply to this email as it is an unmonitored mailbox. [Contact us](#) for comments or questions.

## The Official Safety Newsletter of the Civil Air Patrol-September 2012

VISIT US ON THE WEB  
[WWW.GOCIVILAIRPATROL.COM](http://WWW.GOCIVILAIRPATROL.COM)

Discover, report, stop, share, listen, and learn. The things we have read about in this issue already have happened, so you are not allowed to experience these for yourself.

Remember to "Knock It Off" and slow down. For streaming dialogues on some subjects, remember CAP Safety is on Facebook and Twitter.

### SUMMARY

CAP's safety awareness and program management has significantly improved with the addition of NHQ safety staff working in conjunction with the National Safety Team (NST). The NST is comprised of the National Safety Officer and volunteer assistants assigned as subject matter experts for flight and ground safety. Region and Wing Commanders are moving away from a punitive safety program towards a behavior-based safety program that has shown significant improvement in using safety mishaps as an educational opportunity to raise awareness and prevent risk exposure.

Got a great safety article that you would like to see in a future Beacon newsletter? Please send it to Lt Col Sharon Williams at [safetybeacon@capnhq.gov](mailto:safetybeacon@capnhq.gov).

# Region Safety Officers



<p><b>Col Charles Greenwood</b> GLR/SE <a href="mailto:cgreenwo@bsu.edu">cgreenwo@bsu.edu</a></p>	<p><b>Col Robert Castle</b> SWR/SE <a href="mailto:rcastle@cox.net">rcastle@cox.net</a></p>	<p><b>Lt Col Bill Woody</b> SER/SE <a href="mailto:wawoody@att.net">wawoody@att.net</a></p>
<p><b>Col Charles Glass</b> MER/SE <a href="mailto:csglass@juno.com">csglass@juno.com</a></p>	<p><b>Lt Col Paul Mondoux</b> NER/SE <a href="mailto:paul@nhplm.org">paul@nhplm.org</a></p>	<p><b>Lt Col Alex Kay</b> PCR/SE <a href="mailto:bcat417@aol.com">bcat417@aol.com</a></p>
<p><b>Col Harold D. Brown</b> NCR/SE <a href="mailto:hbrown9425@aol.com">hbrown9425@aol.com</a></p>	<p><b>Lt Col Donald Johanson</b> RMR/SE <a href="mailto:johansondon@msn.com">johansondon@msn.com</a></p>	



**SAIB:** CE-12-41

**Date:** August 9, 2012

**SUBJ:** Flight Controls – Loose Glide Screw

*This is information only. Recommendations aren't mandatory.*

## **Introduction**

This Special Airworthiness Information Bulletin (SAIB) advises owners, operators, and maintenance personnel of an airworthiness concern, specifically the possibility of a loose glide screw in the control column(s) on **Cessna Models 177, 177A, 177B, 177RG, F177RG, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N, 182P, 182Q, 182R, 182S, 182T, T182, F182P, F182Q, FR182, R182, TR182, T182T, 210-5 (205), 210-5A (205A), 206, U206, U206A, TU206A, TU206B, U206C, TU206C, U206D, TU206D, U206E, TU206E, U206F, TU206F, U206G, TU206G, P206, P206A, TP206A, P206B, TP206B, P206C, TP206C, P206D, TP206D, P206E, TP206E, 206H, T206H, 207, T207, 207A, T207A, 210B, 210C, 210D, 210E, 210F, T210F, 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, T210M, 210R, T210R, P210N, P210R, T303, 337C, T337C, 337D, T337D, 337E, T337E, 337F, T337F, 337G, 337H, T337H, F337E, FT337E, F337F, FT337F, F337G, F337H, T337H-SP, P337H, M337B, FT337GP, and FT337HP** airplanes.

At this time, this airworthiness concern is not considered an unsafe condition that would warrant airworthiness directive action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

## **Background**

The FAA received a report through the Safety Difficulty Reporting (SDR) system of a jammed elevator control system on a Cessna Model 182S airplane. The jam occurred in flight in the neutral elevator position, and the pilot was able to land the airplane safely using elevator pitch trim control. A mechanic removed the control wheel assembly and discovered the screw (part number (P/N) NAS220-14), which secures the plug (P/N 0760681-1) and glide (P/N 0760651-2), had completely backed out and jammed the elevator control.

A screw that completely backs out could jam the elevator in any position encountered during normal operation. There have been seven other reports of this screw being found with no or low torque. This design, or one similar to it, has been used on the Cessna airplanes listed above.

## **Recommendations**

The FAA recommends complying with Cessna service bulletins SEB-27-01 (original, R1, or R2) or MEB-27-01 (original or R1). These service bulletins specify replacing the screw (P/N NAS220-14 or P/N MS27039-0814) that can back out with a screw that will be lock-wired in place, and therefore can not back out.

**NOTE:** Although SB98-27-04 deals with a similar issue, this service bulletin does not address this issue, and we do not recommend following this service bulletin. Please use one of the service bulletins listed above.

**For Further Information Contact**

Ann Johnson, Aerospace Engineer, 1801 Airport Road, Wichita, KS 67209; phone: (316) 946-4105; fax: (316) 946-4107; e-mail: [ann.johnson@faa.gov](mailto:ann.johnson@faa.gov).

**For Related Service Information Contact**

Cessna Aircraft Company, One Cessna Boulevard, PO Box 7704, Wichita, KS 67277; phone: (316) 517-5650.